

March 19, 2002

Ms. Ann W. McIver
Environmental Coordinator
Citizens Thermal Energy
366 Kentucky Avenue
Indianapolis, IN 46225-1165

Re: CTE Perry K Steam Plant, Boilers #11, # 13 and #14
Administrative Amendment 097-15403-00034
to the Construction Permit **097-0034-01**
Part 70 Permit (pending): **097-6567-00034**

Dear Ms. McIver:

On December 20, 2001, the Citizens Thermal Energy requested an Administrative Amendment to the Construction Permit 097-0034-01, issued on March 8, 1998, to remove the requirement to operate the COMS (Continuous Opacity Monitoring Systems) on the Boilers #11, #13 and #14.

The COMS installation was required (Construction Permit Operation Condition 10) due to boilers #11, #13 and #14 transition to burning coke gas. Pursuant to Construction Permit Operation Condition 10(e), "the permittee may petition ERMD (*now OES*) and IDEM after two years from the date of the Operation Permit Validation Letter to suspend the requirement for COMS. Such petition shall be considered approved upon submission provided no violations of Operation Condition 9 (*Opacity Limitations*) have occurred and that the COMS are in compliance with this condition."

The review of the source's compliance reports and inspections during the two years period preceding this request (since January 1, 2000, till December 31, 2001) showed the following:

- S no opacity exceedances in the year 2000;
- S exceedances on February 1 and February 2, 2001, as a result of the Coke Gas delivered to the plant higher than normal liquid content which resulted in liquid being entrained in the fuel and being carried to the boilers control systems (the calorimeter). In response to that incident, operational changes were made at the Indianapolis Coke Plant to resolve the high liquid levels in the gas. As well, the Perry K personnel now routinely checks liquid levels in the tank to ensure that the tank does not reach levels which could compromise operations;
- S One (1) 6-minute average exceedance related to soot blowing - in June, 2001 was not a violation as defined by Construction Permit Condition 9 (b), because, according to 326 IAC 5-1-3(b), it is exempt from opacity requirements during the ash (soot) blowing operations;
- S Two (2) exceedances: on July 25 and October 24, following COG (Coke Oven Gas) line "pigging", or the process by which the COG gas lines located between Perry K and Indianapolis Coke Plant are cleaned. To avoid opacity exceedances in the future during line "pigging", the source's "Operator Training Procedure" was adjusted to include appropriate instructions for the operators who also received additional training on switching the boilers from natural gas to COG after the lines "pigging";
- S One (1) exceedance on October 16, 2001 occurred as a result of a tube leak on #14 boiler.

Taking into consideration the above referenced opacity exceedance history and the source's efforts to avoid those exceedances in the future, OES approves the Administrative Amendment to the Construction Permit

097-0034-01. The following changes were made in the Construction Permit Condition 10 (page 7) :

- Continuous Emission Monitoring
10. The Permittee shall install, calibrate, maintain and operate continuous emission monitoring systems (CEMS) including diluent and flow monitoring for SO₂, NO_x, and CO ~~and continuous opacity monitoring systems (COMS)~~ in accordance with 326 IAC 3-1.1, Continuous Monitoring of Emissions, for Boilers 11, 13 and 14.
- a) Any CEMS installed by the Permittee shall be operated continuously except during calibration checks, zero and span adjustments (not including certifications) or periods of repair or when the boiler is not in operation. The Permittee shall conduct maintenance or repair in a manner that will minimize downtime.
 - b) The CEMS for determining compliance with SO₂ pursuant to Operating Conditions 11 and 13, shall include a SO₂ monitoring system capable of recording emissions in pounds per million Btu and tons per day.
 - c) The CEMS for determining compliance with NO_x pursuant to Operating Conditions 13 and 14, shall include a NO_x monitoring system capable of recording emissions in pounds per hour.
 - d) The CEMS for determining compliance with CO pursuant to Operating Conditions 13 shall include a CO monitoring system capable of recording emissions in tons per day.
 - ~~e) The permittee may petition ERMD and IDEM after two years from the date of the Operation Permit Validation Letter to suspend the requirement for COMS. Such petition shall be considered approved upon submission provided no violations of Operation Condition 9 have occurred and that the COMS are in compliance with this condition.~~

This change will be incorporated in the source's pending Part 70 Permit 097-6567-00034 that was submitted on September 13, 1996.

Also, by the permittee request, due to the ownership change, the source's and owner name is changed from **Indianapolis Power & Light Company** to **Citizens Thermal Energy**.

All other conditions of the Construction Permit 097-0034-01 shall remain unchanged and in effect. Please attach a copy of this amendment and the enclosed revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions please call Mr. Boris Gorlin at (317) 327-2280.

Sincerely,

Original Signed by Jodi Perras Kusmer
Jodi Perras Kusmer
Acting Administrator, OES

Enclosure
BG

**CONSTRUCTION PERMIT
AIR QUALITY MANAGEMENT SECTION**

Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221-2097

**Citizens Thermal Energy
396 Kentucky Avenue
Indianapolis, Indiana 46225**

is hereby authorized to construct

Existing boilers specified below are being converted from coal fired units to coke oven gas and natural gas fired units:

- a) Boiler #11 has a design heat input capacity of 368 MMBtu per hour for Natural Gas and 382 MMBtu per hour for Coke Oven Gas. The burner system is designed to allow for the co-firing as well as the firing of each fuel separately. Emissions from boiler 11 exhaust out one stack, identified as stack 3 that is shared with boiler #12.
- b) Boiler #13 has a design heat input capacity of 403 MMBtu per hour for Natural Gas and 411 MMBtu per hour for Coke Oven Gas. The burner system is designed to allow for the co-firing as well as the firing of each fuel separately. Emissions from boiler 13 exhaust out one stack, identified as stack 4 that is shared with boiler #14.
- c) Boiler #14 has a design heat input capacity of 403 MMBtu per hour for Natural Gas and 411 MMBtu per hour for Coke Oven Gas. The burner system is designed to allow for the co-firing as well as the firing of each fuel separately. Emissions from boiler 14 exhaust out one stack, identified as stack 4 that is shared with boiler #13.

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of IAPCB Regulation 2, 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-097-0034-01	
Issued by: Robert F. Holm, Ph.D., Administrator Environmental Resources Management Division	Issuance Date:

First Administrative Amendment 097-15403-00034	Pages affected: 1, 7
Issued by: Jodi Perras Kusmer Acting Administrator, OES	Issuance Date:

- a) Visible emissions shall not exceed an average of 30% opacity in 24 consecutive readings.
- b) Visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

Continuous Emission Monitoring

10. The Permittee shall install, calibrate, maintain and operate continuous emission monitoring systems (CEMS) including diluent and flow monitoring for SO₂, NO_x, and CO in accordance with 326 IAC 3-1.1, Continuous Monitoring of Emissions, for Boilers 11, 13 and 14.

- a) Any CEMS installed by the Permittee shall be operated continuously except during calibration checks, zero and span adjustments (not including certifications) or periods of repair or when the boiler is not in operation. The Permittee shall conduct maintenance or repair in a manner that will minimize downtime.
- b) The CEMS for determining compliance with SO₂ pursuant to Operating Conditions 11 and 13, shall include a SO₂ monitoring system capable of recording emissions in pounds per million Btu and tons per day.
- c) The CEMS for determining compliance with NO_x pursuant to Operating Conditions 13 and 14, shall include a NO_x monitoring system capable of recording emissions in pounds per hour.
- d) The CEMS for determining compliance with CO pursuant to Operating Conditions 13 shall include a CO monitoring system capable of recording emissions in tons per day.

Sulfur Dioxide Emissions Limitation

11. That pursuant to IAPCD Regulation 7 and 326 IAC 7-4-2(29) (Sulfur Dioxide Emission Limitations), the permittee shall comply with the emissions limitations in pounds per million Btu and other requirements as follows:

<u>Boiler Number</u>	<u>Emission Limitations</u>
(a) 17 and 18	0.3
(b) 11, 12, 13, 14, 15, and 16	2.1

- (c) As an alternative to the emission limitations in clause (B), sulfur dioxide emissions from Boilers 11, 12, 13, 14, 15 and 16 may comply with any one (1) of the sets of emission limitations in pounds per million Btu as follows:

	Boilers	Emissions Limitation lbs/MMBtu
(i)	13, 14, 15 and 16	0.0
	11 and 12	4.4
(ii)	11, 12, 15 and 16	0.0